(l)

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OH **(l)**

in which

- R is a dialkoxymethyl group with from 3 to 17 carbon atoms, a 1,3-dioxolan-2-yl group optionally substituted on peaks 4 and/or 5 by one or more alkyl groups comprising from 1\to 8 carbon atoms or a 1,3-dioxan-2-yl group optionally substituted on peaks 4 and/or 5 and/or 6 by one or more alkyl groups comprising from 1 to 8\carbon atoms,
- n has the value 1, 2 or 3 and the group or groups

are in ortho and/or in para position of the OH group of the cycle

m represents from 0 to 4-n and X represents a functional group such as hydroxyl or halogen such as chlorine, fluorine, bromine, iodine or an alkyl or alkoxy group comprising from 1 to 8 carbon atoms or aryl group comprising from 5 to 12 carbon atoms and optionally 1 or 2 heteroatoms such as nitrogen or oxygen or carboxy or -CO\Y group in which Y represents an alkyl or alkoxy radical containing from

to 8 carbon atoms or amido or amino or thiol radical, on condition that at least one of the ortho or

para positions of the phenolic cycle is substituted by a hydrogen, with the exception of the compound $\underline{1}$

and their salts with the alkali metals, alkaline-earth metals and amines.

2. Preparation process for phenolic compounds of formula (I) and their salts with the alkali metals, alkaline-earth metals and amines characterized by the fact that:

a phenol of formula (II)

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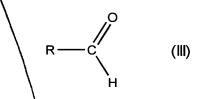
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$$R_{5}$$
 R_{1}
 R_{2}
 R_{3}
 R_{3}
 R_{3}

in which R₁, R₂, R₃, R₄, R₅ can be a hydroxyl radical, a halogen such as chlorine, fluorine, bromine, iodine or an alkyl radical comprising from 1 to 8 carbon atoms or an ester radical comprising from 1 to 8 carbon atoms or an ester radical comprising from 1 to 8 carbon atoms or an

amide radical or an amine radical or a thiol radical, on condition that at least one of the ortho or para positions of the phenolic cycle is substituted by a hydrogen

is reacted with an aldehyde of formula (III)



in which R is a dialkoxymethyl group, a 1,3-dioxolan-2-yl group optionally substituted on peaks 4 and/or 5 by one or more alkyl groups or a 1,3-dioxan-2-yl group optionally substituted on peaks 4 and/or 5 and/or 6 by one or more alkyl groups in the presence of a base.

- 3. Process according to claim 2, characterized by the fact that 1 mole of phenol of formula II is reacted with 0.1 to 10 moles of aldehyde of formula III in the presence of 0.1 to 2 moles of base.
- 4. Process according to claim 3, characterized by the fact that 1 mole of phenol of formula II is reacted with 0.1 to 5 moles of aldehyde of formula III in the presence of 0.1 to 1 mole of base.
- 5. Process according to claim 2, characterized in that the base is constituted by tertiary amines.
- 6.) Process according to claim 5, characterized in that the base is constituted by tributylamine or triethylamine.
- 7. Process according to claim 2, characterized in that the base is a hydroxide of alkali metal.
- 8. Process according to claim 7, characterized in that the base is constituted by sodium hydroxide or potassium hydroxide.
- 9. Process according to claim 2, characterized in that the base is a carbonate of alkali metal.

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- 10. Process according to claim 9, characterized in that the base is sodium carbonate or potassium carbonate.
- 11. Process according to claim 2, characterized in that the product of formula 1II is dimethoxyacetaldehyde, diethoxyacetaldehyde, dibutoxyacetaldehyde, 2-formyl-1,3-dioxolane or 5,5-dimethyl 2-formyl 1,3-dioxane.
- 12. Use of the phenolic compounds of formula (I) and their salts with the alkali metals, alkaline-earth metals and amines, according to claim 1, as synthesis intermediate.
- 13. Use of the phenolic compounds of formula (I) and their salts with the alkali metals, alkaline-earth metals and amines, according to claim 1, as intermediate for the preparation of phenolic resins without formaldehyde.
- 14. Use of the phenolic compounds of formula (I) and their salts with the alkali metals, alkaline-earth metals and amines, according to claim 1, as crosslinker without formaldehyde.
- 15. Use of the phenolic compounds of formula (I) and their salts with the alkali metals, alkaline-earth metals and amines, according to claim 1, as crosslinker with a cellulose substrate, a non-woven substrate, of nylon, of polyester, of glass.

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